

In the claims: The claims are as follows.

1. Canceled.

2. (Currently amended) A digital communication system comprising:  
a symbol generator and a modulator, the symbol generator for  
translating a bit stream into a symbol stream based on a  
predetermined signal constellation, each symbol in the symbol  
stream for representing a predetermined even number of consecutive  
bits in the bit stream, the modulator configured to use a  
predetermined modulation scheme to modulate a carrier signal with  
the symbol stream so as to provide a modulated carrier signal,  
wherein the signal constellation has a dimensionality that is at  
least four and is a multiple of two, and each symbol of the signal  
constellation corresponds to an ordered set of at least two sets of  
two or more numbers, and further wherein for each of the at least  
four-dimensional symbols, the modulator is configured to modulate  
the carrier signal using in turn each of the at least two  
corresponding sets of two or more numbers,~~The digital communication~~  
~~system of claim 1~~ and wherein each symbol of the signal  
constellation is located in the signal constellation so as to be  
separated from any other symbol by at least a distance of  $a^5 P^{1/2}/b$ ,  
where  $a=2^{1/4}$  and  $b=(1+2^{1/2})^{1/2}$  and P is the power radiated in  
transmitting one symbol.

3. Canceled.

4. (Currently amended) A method by which a digital communication  
system (20) transmits a bit stream, comprising:  
a symbol generator translating a bit stream into a symbol  
stream based on a predetermined signal constellation, wherein each  
symbol in the symbol stream representing a predetermined even  
number of consecutive bits in the bit stream, and

a modulator using a predetermined modulation scheme to modulate a carrier signal with the symbol stream so as to provide a modulated carrier signal,

wherein the signal constellation has a dimensionality that is at least four and is a multiple of two, and each symbol of the signal constellation corresponds to an ordered set of at least two sets of two or more numbers, and further wherein for each of the at least four-dimensional symbols, the modulator modulates the carrier signal using in turn each of the at least two corresponding sets of two or more numbers~~The method of claim 3, and~~

wherein each symbol of the signal constellation is located in the signal constellation so as to be separated from any other symbol by at least a distance of  $a^5 P^{1/2} / b$ , where  $a = 2^{1/4}$  and  $b = (1 + 2^{1/2})^{1/2}$  and P is the power radiated in transmitting one symbol.